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subject
Reports, Award N00014-07-10-0963

date
30 May, 2008

Dear Madam, Sir,

Please find enclosed:

- ☐ for your information
- ☐ at your request
- ☐ with reference to
- ☐ for review and/or comments, please comment before
- ☐ for further action
- ☐ for the meeting on
- ☐ please return the documents before
- ☑ SF 298 + Final Report

Sincerely,

Ad Oorbeek
Financial Department

20080902052

enclosure(s)
2

Decisive advice and design for all water-related issues.

AQ F08-11-10350

REPORT DOCUMENTATION PAGE

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14. ABSTRACT

The objective of the current research proposal is to develop and test a numerical model to simulate and predict the seasonal morphodynamic evolution of intertidal mud flats in macrotidal environments at high suspended sediment concentrations at the spatial scale of such flats.Our 2007 approach consists of participating in the Phase I – Project Planning workshops to prepare the Phase II – Detailed Studies part of the mudflat project. Our input consists in particular of:

- The Asian Bay model developed within Delft3D
- Setting up a strategy to measure the required sediment properties,
- Setting up a strategy to calibrate and validate the morphodynamic model to be developed in Phase II of the study.

15. SUBJECT TERMS
mudflats, morphodynamics

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Morphodynamic modeling of tidal mud flats

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LONG-TERM GOALS

Our long-term goal is to determine the morphological and geotechnical stability of mudflats and their variation in time, in particular the seasonal variations.

OBJECTIVES

The objective of the current research proposal is to develop and test a numerical model to simulate and predict the seasonal morphodynamic evolution of intertidal mud flats in macrotidal environments at high suspended sediment concentrations at the spatial scale of such flats.

APPROACH

Our 2007 approach consists of participating in the Phase I – Project Planning workshops to prepare the Phase II – Detailed Studies part of the mudflat project. Our input consists in particular of:

- The Asian Bay model developed within Delft3D
- Setting up a strategy to measure the required sediment properties,
- Setting up a strategy to calibrate and validate the morphodynamic model to be developed in Phase II of the study.

WORK COMPLETED

Dr. Winterwerp participated in two workshops on the preparation of the detailed working plan for the coming years:

- March 26 – 30, Honolulu
- June 4 – 8, Seoul, Korea

RESULTS

The results of the study consist of contributions to discussions and the various joint notes that have been drawn up during and after the workshops.

IMPACT/APPLICATIONS

The working plan Phase I forms the basis for the work to be carried out in the next few years.

TRANSITIONS

The 2007 transitions consist of participation in the workshops with American and Korean scientists.

RELATED PROJECTS

This project has close relations to the MURI project from a technical-scientific point of view.

REFERENCES

not relevant in 2007.

PUBLICATIONS

none.

PATENTS

none.

HONORS/AWARDS/PRIZES

none.